

NATURAL RESOURCES CONSERVATION SERVICE

VIRGINIA

OPERATION AND MAINTENANCE REQUIREMENTS

WASTE STORAGE FACILITY

CODE 313

Land Owner/Operator_____

County_____ SWCD_____ Farm/Tract No. _____

Prepared By_____ Date_____

OPERATION AND MAINTENANCE ITEMS

A properly operated and maintained waste storage structure is an asset to your farm. The waste storage structure was designed and installed to be used for the temporary storage of animal wastes. Estimated life span of this installation is at least _____ years. The life of this installation can be assured and usually increased by developing and carrying out a systematic operation and maintenance program.

This practice will require periodic maintenance and may also require operational items to maintain satisfactory performance. Your operation and maintenance program includes:

- Waste shall be removed from storage and utilized at locations, times, rates, and volumes in accordance with Virginia Conservation Practice Standards *Nutrient Management (Code 590)* or *Waste Utilization (Code 633)*. Virginia state regulations, including the certified nutrient management plan, must be followed when emptying and applying animal wastes. Waste storage facilities are to be routinely agitated and pumped to prevent the accumulation of excessive solids.
- Maintain all pumps, agitators, piping, valves and all other electrical and mechanical equipment in good operating condition by following the manufacturer's recommendations. Maintain grounding rods and wiring for all electrical equipment in good condition.
- Do not allow the operation of any equipment that exceeds the design limit on or within ten feet of the structure.
- All fences, railings, and/or warning signs shall be maintained to provide warning and/or prevent unauthorized human or livestock entry. Maintain all lids, grates, and shields on openings to underground structures.
- Maintain positive drainage away from the facility.
- Immediately empty storage facilities if the structure has been damaged and there is danger of imminent failure. Immediately seek a qualified engineer to assess the situation. Follow the Emergency Action Plan in case of an overflow, breach, leakage, fire, need for emergency land application, etc.

- Eradicate or otherwise remove all rodents or burrowing animals and repair any damage caused by their activity. Maintain screens and/or rodent guards.
- Immediately repair any vandalism, vehicular or livestock damage to the structure, earthen areas surrounding the structure, or any appurtenances.
- Operate the facility in a manner that minimizes odors and air drift.
- **Do not allow human entry into any enclosed structure without safety equipment that includes ladders and breathing apparatus.**

Additionally, for an earthen pond-type animal waste storage facility:

- Unroofed waste storage facilities shall be operated so as to maintain the storage capacity for the 25-year, 24-hour storm and storm runoff.
- Immediately remove all foreign debris within the structure that may cause damage to pumps, agitators, compacted clay liners, or earthfill.
- Periodically inspect spillways and control gates for their ability to maintain the water level to design elevations. Immediately remove any blockage or obstructions in spillways and maintain a minimum of _____ feet of elevation from the top of the structure to the maximum water surface for earthen storage structures.
- Periodically inspect earthen embankments for longitudinal cracks or unusual settlement. Make sure all structure drains are functional and soil is not being transported through the drainage system.
- Maintain vigorous growth of vegetative coverings on earthen structures. This includes reseeding, fertilization, and application of herbicides when necessary. Fertilize the established stand as needed to maintain a uniform vigorous stand. The embankment and other vegetated areas shall be mowed to maintain a protective vegetative cover. Vegetation shall be clipped a minimum two times each year on the pond embankments. Trees shall not be allowed to grow on the embankments.
- The soil liner must be protected against damage from agitators or other equipment activities that could reduce the soil liner's effectiveness. The soil liner must also be protected from the erosive forces of filling operations as well.
- Prevent animals from entering the waste holding pond and woody vegetation from becoming established to protect the soil liner from damage.
- Protect the soil liner from desiccation by maintaining a layer of manure over the liner or adding water.

Additionally, for a concrete pit-type animal waste storage facility:

- Check backfill areas around structures often for excessive settlement. Determine if settlement is caused by backfill consolidation, erosion, or failure of the structure. Necessary repairs must be made.
- Check walls and floor often- minimum of 2 times per year when the facility is empty- for cracks and/or separation of concrete, and make needed repairs.
- Outlets of foundation drains should be checked frequently and be kept open. The outflow from these drains should be checked when the storage facility is being used to determine if there is

leakage from the storage structure into these drains. If leakage is detected, repairs should be planned and made to prevent the possible contamination of groundwater.

- To prevent erosion, a good vegetative cover should be established and maintained around the outside of the pit. Vegetation should be clipped twice per year to kill noxious weeds and encourage a vigorous growth. If the vegetative cover is damaged it should be re-vegetated as soon as possible.

Additionally, for a dry stack animal waste storage facility:

- Stacking facilities shall be inspected at least twice each year when the facility is empty. Any wooden parts, hardware, or other replaceable parts which are damaged or show excessive wear or decay shall be replaced. Roof structures should be examined for structural integrity. Walls of dry stacks that are constructed with lumber may need repair or replacement during the life of the structure.
- To prevent erosion, a good vegetative cover should be established and maintained around facilities. Clipping twice a year should kill noxious weeds and ensure a vigorous stand. Traffic accesses shall be maintained and/or replaced as necessary.
- Check backfill areas around structure for excessive settlement. Make necessary repairs.

Additionally, for a poultry litter dry stack facility:

- Poultry litter shall not be stored outside unless an emergency situation occurs. Litter must be covered in accordance with the certified Nutrient Management Plan and Virginia state law.
- When moving litter from houses to shed, push out and loading areas should be scraped and cleaned to avoid spilled litter from entering streams. If possible, when removing litter from shed, the litter should be loaded in the shed. If loaded outside, all spilled litter should be scraped and removed.
- In order to reduce the potential for fires in the litter storage structure the following is recommended:
 - Pile height should not exceed 7 feet. Storing material in separate small windrows reduces the cross sectional area and is the safest option for stacking.
 - Keep the litter dry. Do not wet the litter in the hope of preventing fire; just the opposite may occur.
 - Avoid piling wet material in contact with dry material. Do not layer new litter on top of old, and do not let dead poultry compost come into contact with stored litter.
 - Do not compact the material by driving over it or packing it with equipment.
 - Monitor temperatures at different points in the pile frequently. If temperatures exceed 190°, or if the material is smoldering, prepare to remove material from the building. This includes notifying the local fire department to be on hand. A smoldering pile could burst into flames if exposed to air. A garden hose could be inadequate to extinguish the fire.

Additional Operation and Maintenance Requirements Specific to this Waste Storage Facility O&M Plan:

Maximum Waste Elevation before pumping must begin: _____

[illegible]